



TOWN OF WEST HARTFORD

RECEIVED

JUN 28 2019

PLANNING & ZONING DIVISION
Town of West Hartford, CT

DEPARTMENT OF COMMUNITY
DEVELOPMENT
PLANNING DIVISION
TOWN OF WEST HARTFORD
50 SOUTH MAIN STREET
WEST HARTFORD, CT 06107-2431
TEL: 860.561.7555 FAX: 860.561.7504
www.westhartfordct.gov

PERMIT APPLICATION FOR INLAND WETLANDS & WATERCOURSES

ACTIVITY: (check one of the following)

☐ MAP AMENDMENT

☒ REGULATED ACTIVITY

File #: 1109

Date Received: 6/28/19

Street Address of Proposed Activity: (173 Mountain Rd.) Spicebush Swamp Park - Mountain Rd

Zone: _____ Acreage/Lot Area: _____ Parcel/Lot#: Parcel # 3701-1-173-0101

Application Fee: _____ Surcharge Fee: _____ Affidavit Fee: _____

Applicant's Interest in Property: Town owns Spicebush Swamp and requests dredging of pond within park to maintain habitat and current use as educational location.

Brief Description of Proposed Activity: Dredge McGovern Pond, located within Spicebush Swamp Park per proposed plan, in conjunction with Engineering Dept.

The undersigned warrants the truth of all statements contained herein and in all supporting documents to the best of his/her knowledge and belief. Furthermore, the applicant agrees that submission of this document constitutes permission and consent to Commission and Staff inspections of the site. Note: Notice is hereby given the Connecticut Department of Public Health must be notified by applicants for any project located within a public water supply aquifer protection area or watershed area. (CTDPH website at <http://www.dph.state.ct.us>)

Town of West Hartford

Record Owner's Name

50 South Main Street

Street

West Hartford CT 06107

City

State

Zip

860-561-7510

Telephone #

Helen Rubino-Turco, Director, Town of W.Htfd

Applicant's Name

50 South Main Street

Street

West Hartford CT 06107

City

State

Zip

860-561-7517

Telephone #

Contact Person:

Helen Rubino-Turco

Name

same as above

Street

City

State

Zip

860-561-7517

Telephone #

helen.rubino-turco@westhartfordct.gov

Email Address

Helen Rubino-Turco

Applicant's Signature

[Signature]

Signature of Owner/Authorized Agent



McGovern Pond Dredging and Restoration Project
Spicebush Swamp Park – 173 Mountain Road, West Hartford, CT
Submitted June 28, 2019; Updated August 1, 2019

History: Established in 1962, Spicebush Swamp Park was West Hartford's first park to be set aside as a natural area for nature study or walking, and as a 33-acre, outdoor classroom for schools to use. McGovern Pond was created in the park by excavating an area of approximately one acre in Spicebush Swamp Park around 1968. The pond is maintained by a flow of water from a branch of the Trout Brook. Since its creation, McGovern pond has slowly been filled with sediments washed in from upstream watershed sources. These sediments, which consist primarily of road sand, eroded soils from construction sites and organic plant materials, have filled in approximately one quarter of the upstream side of the pond to an average depth of only 1 foot. This process is referred to as "cultural" eutrophication and is a common occurrence in heavily developed watersheds. As the eutrophication process advances, the ability of the affected pond to support a diverse aquatic community diminishes. Sediment at McGovern Pond was addressed once, approximately 15 years ago, when Public Works established a sediment trap, but they did not dredge the pond or address organic matter that had built up around the pond edges.

Reasons for Project – Habitat restoration and Environmental Education: In a letter from 2006, Don Mysling, a Senior Fisheries Biologist with the CT DEEP, recommended that pond restoration projects for this area of Connecticut should be planned to provide habitat for warm water fish species such as largemouth bass and sunfish. "Ideally," he wrote, "the deepest portion of the pond should **be 8 to 10 feet deep** and encompass a **minimum of 25% of the pond area**. The bottom contour along the pond shoreline should be graded to a 3:1 slope (3 feet horizontal for every 1 foot vertical) extending out to a water depth of at least 4 feet. Spawning habitat (rounded gravel) and submerged cover (brush piles, rock piles) can be added as habitat enhancements."

McGovern Pond plays an important role as a location for Ecoventure, the Town's environmental education program. The site supports nearly 1,000 fourth grade visitors annually, where they learn about fresh water biology through hands-on lessons. They test water chemistry and temperature, and study invertebrates, such as frogs and salamanders. The program usually coincides with a field trip to the MDC site to examine the water filtration system. Numerous warm water fish species would also benefit from a deeper, healthy pond, including fresh water trout, bass, sunfish, pickerel, yellow perch and suckers. A vibrant fish population helps reduce mosquitoes.

Dredging: The removal of sediment deposits by dredging is the most efficient method to reverse the eutrophication process and restore the pond to a condition that supports a diverse fish community. There are two methods most commonly used to remove pond sediment. One method uses equipment such as excavator, hauler and bulldozers; a second method involves a hydraulic dredge (sort of mud vacuum). Each method has its own set of benefits and drawbacks. We compared environmental impacts, equipment limitations and budget

Banks will be restored within 10'-15' from shore with native winter rye grasses so that the pond is accessible to the public. Areas beyond the banks will be cleared of existing invasive shrubs such as buckthorn, barberry and multiflora rose, and replanted with native shrubs, such as witch hazel, red osier dogwood and spicebush, plus wild flowers, including butterfly and bee-friendly pollinators. After grading, the meadow will be seeded with turf-forming winter rye grasses, mulch and native wildflower mix.

The entire project will take approximately four (4) weeks, and will be executed in two stages:

- Active work phase (4 weeks): includes mobilization, excavation and hauling, restoration and stabilization of pond and pond banks; fisheries management.
- Restoration (1 week) After a period of time to allow dredged soil to be stabilized, at least one month, the meadow would be graded and seeded after soil is stabilized; planting plan.

Sequence of Construction:

1. Field stake limits of disturbance and haul route.
2. Install sediment and erosion controls as indicated on plans.
3. Install construction fence as shown.
4. Work on diverting the brook to drain pond slowly.
5. Supplement drawdown with pumping if needed.
6. With excavator draw material toward side of the pond.
7. If needed, let majority of water drain from material.
8. Haul material to area indicated on plan. Work from the far side to the front.
9. When the dredging is complete, stabilize the berm with seed and or mulch. Leave sediment and erosion controls around berm until stabilized.
10. The refilling of the pond shall be slow and controlled. Once the water level in the pond reaches a stable elevation, close to the existing elevation, the diversion structure can be removed.
11. The areas disturbed around the pond during dredging shall be repaired and seeded.
12. Sediment and erosion controls shall be installed along the edge of the pond where dredging took place and shall remain until all adjacent disturbed areas are stabilized.
13. After all disturbed areas have established vegetation, remove sedimentation and erosion controls from site.

With advice from Engineering, we estimate the cost to dredge the pond in-house would be \$50,000. A Park/Playscape Improvements (CNRE) account includes funds for this purpose.

Feasible and Prudent Alternatives:

- If we did not dredge the pond, the habitat would be lost. The location has significant importance for environmental education and for recreation around the pond. It is a favorite family fishing spot.
- We limited the amount of material to be dredged so that there would be less impact to the regulated area. We want to preserve the pond but also the character of the

seed can be placed. The berm area will have sediment and erosion controls in place until the area stabilizes.

After completing the dredging, the pond will be refilled. To avoid erosion and sediment transport within the pond, the re-filling of the pond will be controlled at first. The refilling should not take place during any large rainfall events (0.5" or greater) are forecasted. A controlled removal of the diversion will be implemented to allow the pond to refill slowly. Once the level of water in the pond reaches a stable elevation, close to the existing elevation, the diversion structure will be fully removed. Then all project clean-up will take place, including removing temporary laydown areas and restoring any areas disturbed or damaged during the process.

To restore habitat for smaller fish, staff will place logs or brush to a few selected locations in the pond. Fishery management may also include the installation of a few artificial structures, such as a "fish porcupine," as needed. Smaller fish will need these structures to hide from larger fish or other predators.

After the work is completed, other site improvements are planned, including planting native shrubs and flowers. Native species include witch hazel and spicebush, as well as plants to support bees and butterflies, such as milkweed. The park's welcome sign is in disrepair and would be replaced with a sign of like size in the same location. A flower bed surrounding it will be completed in conjunction with the West Hartford Garden Club during the growing season.

Future Maintenance:

Town staff will inspect the forebay annually to assess its effectiveness. The forebay is designed to alleviate major sediment accumulation from happening in the future. A maintenance schedule will be developed based on the successful functioning of the forebay. We expect that some minor maintenance would occur every five years. Smaller, less impactful sediment removal would minimize disruption to the pond and its surroundings.

Attachments:

- Plans from Town's Engineering Department
- Location Map
- Photos of the existing site (pond, meadow and signage)
- Reports from Certified Soil Scientist
- Email Correspondence with US Army Corps of Engineers and DEEP, dated September 2018 and November 2018
- Planting Plan Description
- CT Native Tree and Shrub Availability List
- Correspondence from Don Mysling, Senior Fisheries Biologist at DEP, dated August 3, 2006, re: pond habitat in region, with attachment Fish Habitat Improvements for Streams from Pennsylvania Fish Commission

Catherine Dorau

From: Chuck Guarino
Sent: Thursday, August 1, 2019 2:52 PM
To: Catherine Dorau
Cc: Duane Martin; Julie Viera
Subject: Mountain Road - Spicebush Swamp

Cathy,
The plans titled "Mountain Road Spicebush Swamp McGovern Pond Dredging Scale 1"= 40' Date: July 2019 (sheet 4 revised 8/1/2019)" have satisfactorily addressed my previous engineering comments. I have no remaining comments.



Charles R. Guarino, P.E.
Civil Engineer II
Department of Community Development - Engineering Division
50 South Main Street | Room 204 | West Hartford CT 06107 | t 860.561.7544
Town of West Hartford | www.westhartfordCT.gov

Sent to
Applicant on
7/11



Robert Gosselin

From: Bob Proctor
Sent: Thursday, July 11, 2019 12:26 PM
To: Robert Gosselin
Cc: Catherine Dorau; Helen Rubino-Turco; Todd Dumais; Aimee Krauss
Subject: 173 Mountain Rd.-Spicebush Swamp Park- McGovern Pond Dredging & Restoration Project

Robert,

Based on the proposal and documentation received and reviewed; we have no issue with the McGovern Pond and Restoration Project proposed at the Spicebush Swamp Park area.

Bob Proctor, RS
WHBHD
7-11-19

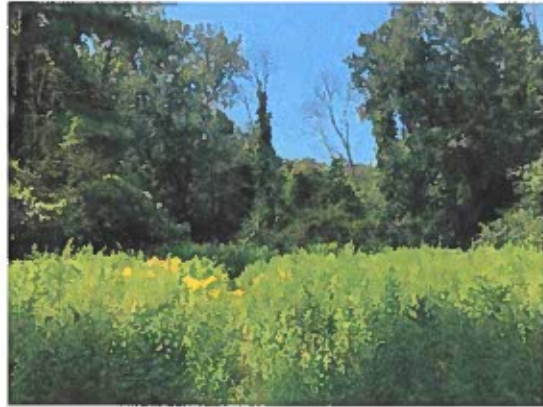
INVENTORY OF PHOTOGRAPHS OF SPICEBUSH SWAMP & MCGOVERN POND

(corresponds with photographs on site plan)

173 MOUNTAIN ROAD, WEST HARTFORD, CT



#1 In meadow look west



#2 In meadow looking East

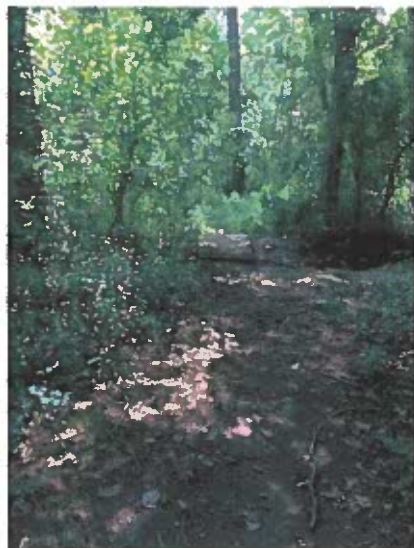


#3 Existing path—proposed haul road looking southwest



#4 Existing path – proposed haul road looking north

#5 Existing path – proposed haul road looking south



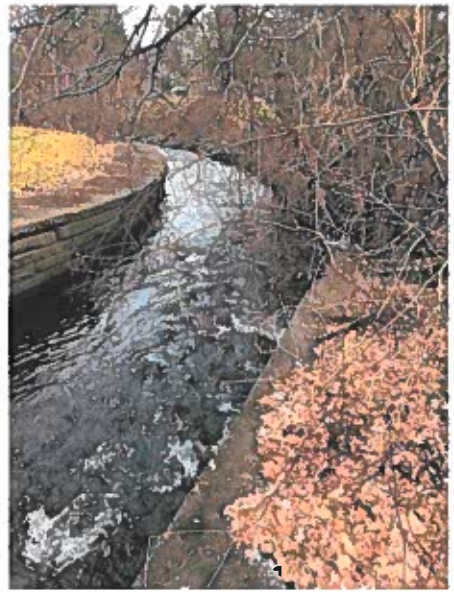
**MCGOVERN POND
SPICEBUSH SWAMP, 173 MOUNTAIN ROAD, WEST HARTFORD**



Existing stream to pond



Existing pond



Spillway from pond downstream



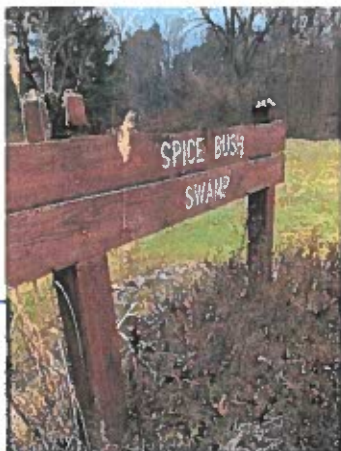
Existing diversion creek



Stream bed existing crossing



Upper meadow



Existing park signage

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PLANNING & ZONING DIVISION
Town of West Hartford, CT

Connecticut Native Tree and Shrub Availability List



Connecticut
Department of Environmental Protection
Bureau of Natural Resources
Wildlife Division



Introduction

This revised (January 2005) native tree and shrub availability list is designed to assist homeowners, landscapers and conservation organizations in locating **native** planting stock for wildlife habitat enhancement. It was compiled from a mail survey of Connecticut's registered nurseries. Of the respondents, many indicated that they have native trees or shrubs in stock or would obtain them by special order. Although some of the listed nurseries are strictly wholesalers, trees and shrubs can be ordered from them through your local nursery or garden center. Present this publication to your local retailer and request if plants can be ordered for you.

Every plant is native to some location. When a plant is grown outside of its original location, it is usually classified as a non-native plant. For example, a Norway maple (*Acer platanoides*) is a native tree in Norway, but in the United States it is a non-native that now comprises a large segment of the street trees in our cities and suburbs. Some non-native plants are invasive and they aggressively compete with native plants. Norway maple is a listed non-native invasive tree, which when planted in suburban or rural areas it may eventually spread to adjacent woodlots, thus occupying space where native trees and shrubs would grow. The adaptability and vigor of the Norway maple is undeniable; however, if a disease or insect infestation occurs in a monoculture, a large die-off may occur. Planting different species is a good buffer against disease and insect infestations.

By their very nature, native plants have adapted to the climate of the area, making them naturally hardy. Wildlife have evolved using them for food, cover and shelter. Proper selection, care and placement of trees and shrubs can produce a landscape that is both visually attractive and beneficial to wildlife.

Landscaping with native plants may require gathering more information. Native plant descriptions, flowering and fruiting periods, site requirements and wildlife habitat values may be found in the references below.

- *Enhancing Your Backyard Habitat for Wildlife*. Peter M. Picone, DEP Wildlife Division. 1995. 28 pp. Available from DEP Wildlife Division, P.O. Box 1550, Burlington, CT 06013. Urban Wildlife Program (860-675-8130). E-mail: peter.picone@po.state.ct.us
- *Native Shrubs for Landscaping*. Sally L. Taylor, Glenn Dreyer and William A. Niering. The Connecticut College Arboretum, New London, CT. Bulletin #30. 1987. 40 pp. Available from the DEP Store, 79 Elm Street, Hartford, CT (860-424-3540).
- *Landscaping for Wildlife*. Carrol L. Henderson. Minnesota Department of Natural Resources. 1987. 144 pp. Available from Minnesota Department of Natural Resources, 500 Lafayette Rd., Box 7, St. Paul, MN 55155-4007.
- *Trees, Shrubs and Vines for Attracting Birds*. Richard M. DeGraaf and Gretchin M. Witman. University of Massachusetts Press, Amherst, MA. 1979. 194 pp.
- *American Wildlife & Plants, A Guide to Wildlife Food Habits*. Alexander C. Martin, Herbert S. Zim and Arnold L. Nelson, Dover Publications, Inc., NY. 1951. 500 pp.
- *Connecticut's Notable Trees*. Glenn D. Dreyer. Memoirs of the Connecticut Botanical Society, No. 2. 1989. 2nd ed. 1990. 94 pp. Available from the DEP Store, 79 Elm Street, Hartford, CT (860-424-3540).



*Gray squirrel with
shagbark hickory nut.*

Hickories

Bitternut Hickory
(*Carya cordiformis*)
13, 24, 28, 48

Pignut Hickory
(*Carya glabra*)
24, 28, 48

Shagbark Hickory
(*Carya ovata*)
13, 18, 24, 28, 33, 48

Mockernut Hickory
(*Carya tomentosa*)
13, 24, 28, 48

Maples

Boxelder
(*Acer negundo*)
13, 24, 28, 29, 32, 41, 48

Black Maple
(*Acer nigrum*)
10, 13, 24, 28, 48

Red Maple
(*Acer rubrum*)
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,
15, 16, 17, 18, 20, 21, 22, 23, 24, 26, 27,
28, 29, 31, 32, 33, 34, 35, 37, 38, 39, 43,
47, 48, 50, 51, 52, 53

Silver Maple
(*Acer saccharinum*)
2, 5, 6, 10, 12, 13, 15, 18, 24, 28, 29, 31,
34, 37, 43, 48

Sugar Maple
(*Acer saccharum*)
1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15,
16, 17, 18, 20, 21, 23, 24, 26, 28, 29, 31,
32, 33, 34, 35, 37, 38, 39, 43, 45, 47, 48,
50, 51, 52, 53, 54

Mountain Maple
(*Acer spicatum*)
24, 28, 48

Oaks

White Oak
(*Quercus alba*)
2, 5, 9, 10, 13, 15, 17, 18, 21, 24, 26, 27,
28, 29, 31, 32, 34, 35, 37, 42, 43, 45, 48,
51, 52

Swamp White Oak
(*Quercus bicolor*)
2, 4, 5, 13, 17, 21, 24, 26, 27, 28, 29, 34,
37, 45, 47, 48, 51

Scarlet Oak
(*Quercus coccinea*)
6, 8, 9, 13, 17, 18, 21, 24, 26, 28, 29, 34,
37, 48, 51

Chinkapin Oak
(*Quercus muhlenbergii*)
6, 13, 24, 26, 28, 48

Chestnut Oak
(*Quercus prinus*)
3, 13, 24, 26, 28, 48

Northern Red Oak
(*Quercus rubra*)
2, 4, 8, 11, 13, 17, 18, 20, 21, 24, 26, 28,
29, 31, 32, 33, 34, 35, 37, 38, 43, 45, 48,
51, 52, 53

Post Oak
(*Quercus stellata*)
13, 24, 28, 34, 48

Black Oak
(*Quercus velutina*)
9, 13, 24, 26, 28, 48

Walnut

Butternut Walnut
(*Juglans cinerea*)
13, 24, 28, 48

Black Walnut
(*Juglans nigra*)
9, 13, 17, 18, 24, 28, 33, 45, 48

Other Deciduous Trees

American Hornbeam
(*Carpinus caroliniana*)
2, 3, 7, 9, 10, 13, 15, 17, 18, 21, 24, 26,
28, 32, 37, 43, 45, 48, 51

Hackberry
(*Celtis occidentalis*)
2, 4, 7, 13, 24, 26, 28, 29, 34, 37, 42, 48,
51

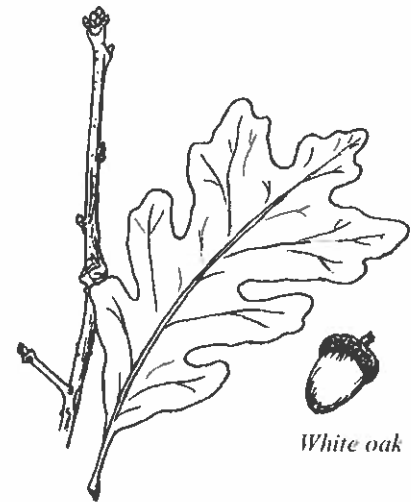
Redbud
(*Cercis canadensis*)
2, 3, 4, 5, 6, 8, 9, 10, 11, 13, 14, 15, 16,
17, 18, 20, 21, 24, 25, 26, 28, 29, 31, 32,
34, 35, 37, 38, 39, 40, 41, 42, 43, 45, 46,
47, 48, 49, 50, 51, 53

Flowering Dogwood
(*Cornus florida*)
2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15,
16, 17, 18, 24, 25, 26, 27, 28, 29, 31, 32,
33, 34, 35, 36, 37, 39, 42, 43, 45, 46, 48,
50, 51, 52, 53

Common Persimmon
(*Diospyros virginiana*)
24, 26, 28, 32, 48

American Beech
(*Fagus grandifolia*)
2, 3, 10, 13, 17, 18, 21, 24, 26, 27, 28,
32, 33, 35, 37, 42, 43, 45, 48, 51

American Holly
(*Ilex opaca*)
1, 2, 3, 4, 6, 7, 9, 10, 13, 14, 18, 20, 24,
26, 27, 28, 31, 34, 35, 37, 42, 43, 46, 48,
51



Sweetgum
(*Liquidambar styraciflua*)
2, 3, 5, 6, 7, 8, 9, 11, 13, 15, 20, 21, 24,
26, 27, 28, 29, 31, 32, 35, 37, 41, 43, 46,
48, 50, 51

Tulip Tree (Yellow Poplar)
(*Liriodendron tulipifera*)
2, 4, 6, 7, 9, 10, 11, 13, 15, 18, 21, 23,
24, 26, 27, 28, 29, 32, 33, 34, 35, 37, 39,
42, 43, 48, 51

Red Mulberry
(*Morus rubra*)
13, 15, 18, 24, 28, 43, 48

Black Gum (Tupelo)
(*Nyssa sylvatica*)
2, 4, 7, 11, 21, 24, 26, 27, 28, 29, 31, 32,
34, 35, 37, 39, 42, 43, 48, 49, 50, 51, 52,
53

Eastern Hophornbeam
(*Ostrya virginiana*)
21, 24, 28, 32, 48, 51

American Sycamore
(*Platanus occidentalis*)
2, 3, 4, 6, 8, 9, 11, 13, 15, 17, 18, 21, 24,
27, 28, 29, 32, 37, 42, 43, 48

Willow
(*Salix spp.*)
2, 4, 6, 8, 9, 11, 13, 14, 15, 16, 17, 18,
21, 23, 24, 26, 28, 29, 33, 34, 35, 36, 37,
38, 42, 43, 46, 48, 51

Sassafras
(*Sassafras albidum*)
2, 7, 13, 18, 21, 24, 26, 28, 48, 51

American Mountain-ash
(*Sorbus americana*)
2, 18, 21, 24, 28, 33, 43, 48

American Basswood
(*Tilia americana*)
2, 13, 24, 26, 28, 37, 42, 48, 51



Shagbark hickory

More Native Shrubs

Shadbush, Serviceberry

(*Amelanchier canadensis*)

2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21, 23, 24, 26, 28, 29, 31, 32, 33, 34, 35, 37, 39, 40, 42, 43, 47, 48, 49, 50, 51, 53

Winterberry

(*Ilex verticillata*)

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 20, 21, 22, 23, 24, 25, 26, 28, 29, 31, 32, 33, 34, 35, 37, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54

Witch-hazel

(*Hamamelis virginiana*)

2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 20, 21, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 40, 42, 43, 45, 46, 47, 48, 49, 51, 52, 53

Black Chokeberry

(*Aronia melanocarpa*)

2, 4, 7, 8, 13, 14, 17, 18, 24, 26, 28, 29, 32, 33, 35, 37, 42, 48, 49, 51, 53

Jersey Tea

(*Ceanothus americanus*)

13, 18, 24, 28, 29, 42, 48, 49, 51

Leatherleaf

(*Chamaedaphne calyculata*)

2, 5, 10, 24, 28, 48, 51

Summersweet or Sweet Pepperbush

(*Clethra alnifolia*)

2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 20, 21, 23, 24, 26, 27, 28, 29, 31, 32, 34, 35, 36, 37, 38, 39, 40, 42, 43, 45, 46, 47, 48, 49, 50, 51, 53

Sweet Fern

(*Comptonia peregrina*)

4, 7, 8, 11, 13, 21, 24, 26, 28, 32, 33, 37,

40, 47, 48, 49, 51, 53

Bush Honeysuckle

(*Diervilla lonicera*)

2, 3, 5, 8, 10, 13, 14, 15, 18, 24, 27, 28, 31, 32, 40, 47, 48, 51

Labrador Tea

(*Ledum groenlandicum*)

9, 11, 12, 24, 28, 32, 36, 40, 48, 49, 51

Spicebush

(*Lindera benzoin*)

2, 3, 4, 7, 8, 9, 11, 18, 20, 21, 24, 26, 27, 28, 29, 32, 33, 35, 37, 40, 42, 47, 48, 50, 51, 53

Huckleberry, Maleberry

(*Lyonia ligustrina*)

18, 24, 26, 28, 33, 48

Bayberry

(*Myrica pensylvanica*)

2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 14, 15, 17, 18, 20, 21, 22, 24, 26, 27, 28, 29, 31, 32, 33, 34, 35, 37, 39, 40, 42, 43, 47, 48, 49, 50, 51, 52, 53, 54

Mountain Holly

(*Nemopanthes mucronata*)

5, 9, 11, 24, 28, 40, 45, 48, 51

Shrubby Cinquefoil

(*Potentilla fruticosa*)

2, 3, 4, 6, 9, 11, 13, 14, 15, 17, 18, 24, 25, 26, 28, 29, 31, 32, 35, 36, 37, 38, 40, 43, 47, 48, 50, 51, 53

Elderberry

(*Sambucus canadensis*)

4, 11, 12, 13, 23, 24, 28, 29, 35, 41, 43,

47, 48, 49, 51, 53

Meadowsweet Spiraea

(*Spiraea latifolia*)

2, 13, 18, 24, 28, 32, 33, 35, 40, 43, 48

Bladdernut

(*Staphylea trifolia*)

24, 28, 48

Canada Yew

(*Taxus canadensis*)

2, 3, 13, 24, 27, 28, 36, 40, 48

Highbush Blueberry

(*Vaccinium corymbosum*)

1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 34, 35, 37, 40, 45, 46, 47, 48, 49, 50, 51, 52, 53

Leatherwood

(*Dirca palustris*)

2, 18, 24, 28, 48

Common Juniper

(*Juniperus communis*)

2, 5, 8, 10, 12, 13, 17, 18, 21, 24, 25, 26, 27, 28, 32, 33, 35, 37, 40, 43, 48

Buttonbush

(*Cephalanthus occidentalis*)

4, 7, 9, 11, 24, 26, 27, 28, 29, 32, 37, 39, 40, 42, 47, 48, 51



Blue jay on white pine

31. **Preferred Properties Landscaping**
1456 Highland Ave.
Cheshire, CT 06410
203-250-1030

32. **Quackin' Grass Nursery**
16 Laurel Hill Rd.
Brooklyn, CT 06234
860-779-1732

33. **R.S. Merriman**
455 Milford St.
Burlington, CT 06013
860-675-3480

34. **Running Brook Farms,
Nursery & Landscaping**
212 Route 80
Killington, CT 06419
860-663-5522
Fax: 860-663-1190
Email: runningbrookfarms@comcast.net
www.runningbrookfarms.com

35. **Salem Country Gardens**
380 New London Rd.
Salem, CT 06420-4102
860-859-2508
Fax: 860-859-1295
Email: scg@salemcg.com
www.salemcg.com

36. **The Seasonal Shop**
Anthony & Catherine Grasso
386 Madison Rd.
Durham, CT 06422
860-349-3497

37. ****Shemin Nurseries,
Inc. - Greenwich**
1081 King St.
Greenwich
203-531-6700

38. **Somersville Gardens, LLC**
PO Box 576
23 Hall Hill Rd.
Somersville, CT 06072
860-749-5535

39. **Steck Nursery**
100 Putnam Park Rd.
Bethel, CT 06801
203-748-1385
Fax: 203-792-1936
www.atstecks.com

40. ****Summer Hill Nursery, Inc.**
M. Johnson
888 Summer Hill Rd.
Madison, CT 06443
203-421-3055
Fax: 203-421-5189
Email: summerhillnur@aol.com
www.summerhillnursery.com

41. **The Variegated Foliage Nursery**
241-245 Westford Rd.
Eastford, CT 06242
860-974-3951
www.variegatedfoliage.com

42. **Twombly Nursery, Inc.**
163 Barn Hill Rd.
Monroe, CT 06468
203-261-2133
Fax: 203-261-9230
Email: info@twomblynursery.com
www.twomblynursery.com

43. **Van Wilgen Garden Center**
51 Valley Rd.
North Branford, CT 06471
203-488-2110
www.vanwilgens.com

44. **Village Farmer Nursery**
Sidney Waxman
51 Codfish Falls Rd.
Storrs, CT 06268
860-429-4594

45. **Wakeman's Nursery**
6923 Main St.
Trumbull, CT 06611
203-261-3926

46. **Weston Gardens, Inc.**
Craig Smith
1 Goodhill Rd.
Weston, CT 06883
203-227-3871

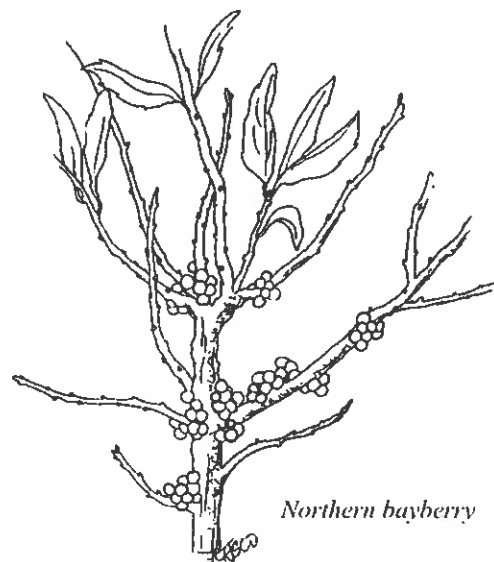
47. ****Planters' Choice**
140 Huntingtown Rd.
Newtown, CT 06470
203-426-4037

48. **Ridgehill Nursey**
2980 State St.
Hamden, CT 06517
203-288-0654

49. **Woodland Trails
Wildflower Nursery**
Deborah Lee & Georgianne Copley
32 Ashford Rd. (Eastford)
Ashford, CT 06278
860-974-2300
Email: plants@woodlandtrailswildflowers.com
www.woodlandtrailswildflowers.com

50. **Warner Nursery Center**
PO Box 662
76 Riverside Rd.
Simsbury, CT 06070
860-651-0204
www.warnerlandscaping.com

51. **Sprucedale Gardens**
Paul Larson
20 East Quasset Rd.
Woodstock, CT 06281
860-974-0045



Northern bayberry

52. **Fieldstone Nursery**
Douglas Baldwin
56 Merryall Rd.
New Milford, CT 06776
860-354-3116

51. **Sprucedale Gardens**
Paul Larson
20 East Quasset Rd.
Woodstock, CT 06281
860-974-0045
pdlarson.clan@juno.com

52. **Fieldstone Nursery**
Douglas Baldwin
56 Merryall Rd.
New Milford, CT 06776
860-354-3116

53. **Prides Corner Farms, Inc.**
122 Waterman Rd.
Lebanon, CT 06249
860-642-7535
Fax: 860-642-5168
www.pridescorner.com

54. **South Farms Nursery Inc.**
PO Box 338
Rte. 63 South/195 Old Middle Street
Goshen, CT 06756
860-491-0065

Connecticut's State Tree: White Oak (Quercus alba), also known as the Charter Oak

Description:

This deciduous tree grows up to 75-100 feet tall. It has grayish white bark and evenly lobed leaves, and it grows on a variety of site conditions. White oak produces acorns, which are highly preferred by deer, turkeys and squirrels.

Connecticut's State Flower: Mountain Laurel (Kalmia latifolia)

Description:

This evergreen shrub grows from 2 to 20 feet tall. It usually grows in the understory and typically in drier soils. Mountain laurel produces showy flowers in early summer, with colors ranging from white to red. The shrub is propagated widely by the nursery industry; many cultivars have been developed by Dr. Richard Jaynes of Broken Arrow Nursery in Hamden.

Wildlife Food Habits

Backyard Songbirds:

American Robin, Northern Catbird

Summer foods: serviceberry (*Amelanchier canadensis*), red mulberry (*Morus rubra*), blueberries (*Vaccinium corymbosum*, *V. angustifolium*)

Fall foods: flowering dogwood (*Cornus florida*), silky dogwood (*Cornus amomum*), common elderberry (*Sambucus canadensis*), arrowwood viburnum (*Viburnum recognitum*), nannyberry viburnum (*Viburnum lentago*), black cherry (*Prunus serotina*)

Winter /spring migration foods: winterberry (*Ilex verticillata*), highbush cranberry viburnum (*Viburnum trilobum*), staghorn sumac (*Rhus typhina*), northern bayberry (*Myrica pensylvanica*), American holly (*Ilex opaca*)

Winter cover: eastern red cedar (*Juniperus virginiana*), white pine (*Pinus strobus*), northern white cedar (*Thuja canadensis*), eastern hemlock (*Tsuga canadensis*), black spruce (*Picea mariana*)

Interior Forest Songbirds:

Wood Thrush, Scarlet Tanager

Summer foods: serviceberry, red mulberry, blueberries

Fall foods: flowering dogwood, silky dogwood, common elderberry, arrowwood viburnum, nannyberry viburnum, black cherry

Spring migration foods: winterberry, highbush cranberry viburnum, staghorn sumac, American holly

*Eastern chipmunk
with acorn*



Helen Rubino-Turco

Subject: FW: [EXTERNAL SENDER] RE: West Hartford - McGovern Pond Project Evaluation
Attachments: Connecticut_General_Permits-August_2016.pdf

From: Lee, Susan K CIV USARMY CENAD (US) [mailto:Susan.K.Lee@usace.army.mil]
Sent: Wednesday, November 28, 2018 2:34 PM
To: Duane Martin <DuaneM@WestHartfordCT.gov>
Cc: Helen Rubino-Turco <Helen.Rubino-Turco@WestHartfordCT.gov>; Julie Viera <Julie.Viera@WestHartfordCT.gov>
Subject: [EXTERNAL SENDER] RE: West Hartford - McGovern Pond Project Evaluation

Hello Duane - I apologize for the delay in responding to you.

Dredging of the inland pond (i.e., removal/excavation of bottom sediments from the jurisdictional waterbody (pond), is not regulated if you were to merely excavate sediments from the pond, load directly onto a truck without stockpiling in wetland areas, and take offsite for appropriate disposal.

Associated restoration activities (grading with bulldozer? on pond bottom and banks, addition of rounded rock within pond limits) are regulated discharges, and require a section 404 permit.

The plan sheet also shows water diversions (cofferdams/sandbag?) on the watercourse that feeds the pond, and a stockpile area within identified wetlands limits.

Temporary fills in/on watercourses/wetlands areas should be included in total impacts on Waters of the U.S. areas.

It is not clear if the entire pond (approx.. 1.0 acre) will be affected by this project. Any temporary access roads required for construction access and placed on wetlands areas should be identified.

The project could potentially be eligible for General Permit review under GP 10 of the CT GPs (pre-construction notification). see pdf page 26 of attached CT GPs).

The plan sheet shows wetlands limits which encompass the roadway. this needs to be clarified. see pdf page 39 (General Condition 2).

hope this is helpful.
Regards, Susan.

Susan K Lee
Project Manager
USACE - New England District
Regulatory Division
696 Virginia Rd
Concord, MA 01742-2751
978-318-8494



-----Original Message-----

From: Duane Martin [mailto:DuaneM@WestHartfordCT.gov]
Sent: Tuesday, September 25, 2018 2:24 PM
To: Lee, Susan K CIV USARMY CENAD (US) <Susan.K.Lee@usace.army.mil>
Cc: Helen Rubino-Turco <Helen.Rubino-Turco@WestHartfordCT.gov>; Julie Viera <Julie.Viera@WestHartfordCT.gov>
Subject: [Non-DoD Source] FW: West Hartford - McGovern Pond Project Evaluation



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Doug Jackson, Park Naturalist
Town of West Hartford – Westmoor Park
119 Flagg Road
West Hartford, CT 06117

August 3, 2006

**RE: Westmoor Park Pond Restoration and Habitat Enhancement
DEP Drainage Basin #: 4403**



Dear Doug,

I am writing in regard to our June 2 field meeting at Westmoor Park. You had requested the meeting to discuss options for restoring and enhancing habitat in three ponds located within the 162-acre park.



The three one-acre ponds had been created by excavation along the course of Hart Meadow Brook. Hart Meadow Brook has a watershed in excess of 2 square miles as it enters the three pond system; the watershed is heavily developed to residential housing and commercial business. As you have noted, sediments, composed primarily of road sand and eroded soils from construction sites, have entered the ponds via the Hart Meadow Brook and have significantly reduced the water depth in the ponds and has allowed for the excessive growth of aquatic plants. This is a common occurrence in small ponds with developed watersheds and is referred to as "cultural" eutrophication. As the eutrophication process advances, the ability of a pond to support a diverse aquatic community becomes lessened. You reported that the ponds historically have been used for environmental education programs however, the soft sediments and overabundance of aquatic plants now prevent safe access to the water for staff and students.

The removal of sediment and aquatic plant growth by dredging is the most efficient means to curtail the eutrophication process and to restore aquatic habitat. There are two methods most commonly used to remove pond sediment. The first is by conventional excavating machinery (e.g. bucket loader, backhoe, bulldozer) and the second by hydraulic dredge. Each method has its own benefits and drawbacks; the method selected is done by comparing environmental impacts, equipment limitations and budget constraints. You are advised to employ an environmental consulting firm specializing in pond restoration to design the dredging project and to provide project oversight. I have enclosed a list of such consulting firms. The consulting firm would also play a key role in preparing permits for the project that would be required by municipal, State, and/or Federal regulatory agencies.

The ponds should be restored to provide habitat for warmwater fish species such as largemouth bass and sunfish. Ideally, the deepest portion of the pond should be 8 to 10 feet and encompass a minimum of 25% of the pond surface area. The bottom contour along the pond shoreline should be graded to a 3:1 slope (3 feet horizontal for every 1 foot vertical)

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Pennsylvania Fish Commission

FISH HABITAT IMPROVEMENT FOR STREAMS

Pond Habitat Enhancement

Cover for juvenile and adult aged fish.

Although pond dredging increases the area available for fish and other aquatic species, the pond bottom is usually fairly uniform and lacks irregular contours or other habitat structures utilized by warmwater fish (largemouth bass, bluegill) for foraging or escape cover. As indicated in research literature, the installation of structures constructed of conifers or deciduous brush can create habitat preferred by bass and bluegill. The most commonly used construction technique is to create piles of rock, brush or conifer trees and space them around the pond at intervals of 50 to 100 feet.

A less-often used technique is one that utilizes rock, conifers or brush (lashed together) to create a lengthy, crescent-shaped row structure. Recent studies indicate this structure design may be more effective at creating the desired habitat enhancement for bass and sunfish than single brush piles. Each structure should be 30 to 40 feet in length, 6 to 8 feet in width, and 3 to 4 feet in height. The "arms" of the crescent-shaped structure should angle in toward the pond and the apex pointing landward.

The structures should be placed in a water depth where they are overtopped with at least two feet of water. Conifers or brush should be lashed securely and weighted to prevent movement. The structures can either be constructed during the winter atop the ice or be constructed on shore during open water periods and be installed by crane or long-reach excavator.

Spawning habitat for adult aged fish

Largemouth bass and bluegill can spawn in warmwater ponds however, successful spawning is dependent upon the availability of suitable spawning habitat. Largemouth bass and bluegill require fine and medium grained gravel. Such material is likely to be removed during dredging and requires replacement afterwards.

Gravel is installed to shallow water areas (2 to 4 feet deep). The gravel should range in size from $\frac{1}{4}$ to $1\frac{1}{4}$ inch and be bank run (rounded) rather than processed (angular). The gravel should be spread as a layer no less than 12 inches in depth. The sites should be approximately 50 to 75 feet in length, extend from the shore to water depths of approximately 5 feet and be spaced at intervals of 75 to 150 feet.

Land-Tech Consultants, Inc. 205 Playhouse Corner Southbury, CT 06488 (203) 264-8300	(Consultant Services)
Lycott Environmental Research Co. ** 600 Charlton Street Southbridge, MA 01550 (508) 765-0101	(Consultant Services)
Marine and Freshwater Research Services 276 State Street Guilford, CT 06437 (203) 453-2379	(Consultant Services)
Max Water Lab 429 Main Street Watertown, CT 06795 (860) 945-3566	(Lake Water Analyses)
Milone & MacBroom 716-726 South Main Street Cheshire, CT 06410 (203) 271-1773	(Consultant Services)
NorthEast Aquatic Research, LLC 74 Higgins Highway Mansfield Center, CT 06250 (860) 456-3179	(Consultant Services)
Shoreline Weed Control ** P.O. Box 191 Winchendon, MA 01475 (978) 297-2052	(Hydro-Raking Services)
Tom McGowan P.O. Box 631 Litchfield, CT 06759 (860) 567-0555	(Consultant Services)
Wengell, McDonnell and Costello, Inc. 87 Holmes Road Newington, CT 06111 (860) 667-9624	(Consultant Services)
Didona Associates 70 North Street, Suite 301 Danbury, CT 06810 (203) 778-1840	(Riparian Landscape Architect)

**** Denotes mechanical weed harvest services**



LOCATION MAP

DREDGING OF McGOVERN POND

MOUNTAIN ROAD
SPICE BUSH SWAMP

